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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,170	10/10/2003	Antti Lilja	879A.0014.U1(US)	2594

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EXAMINER
MILORD, MARCEAU

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/684,170	**Applicant(s)** LILJA ET AL.
	Examiner Marceau Milord	**Art Unit** 2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2003*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-11* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *10 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1- 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al (US Patent No 6915111) in view of O'Sullivan (US Patent No 5640444).

Regarding claims 1-4, Chen et al discloses a circuit arrangement associated with a RF unit of a wireless terminal (figs. 1-2) for testing the RF unit prior to final assembly, in which circuit arrangement the RF unit and an antenna of the wireless terminal are fabricated/mounted on a common printed circuit board and in which the antenna is arranged so as to be connected with the RF unit through at least one signal line (col. 1, lines 46-60; col. 5, lines 13-49).

However, Chen et al does not specifically disclose the features of a signal line that is arranged to be connected across the break by means of a jumper during the assembly of the terminal, wherein said break in the signal line is located between a measuring pad and contact pad, wherein said jumper is part of a mechanical component to be installed in the wireless terminal during the final assembly, wherein said jumper is a discretely mounted component.

On the other hand, O'Sullivan, from the same field of endeavor, discloses a system for connecting a computer to both cellular and landline telephone systems. A cellular modem has a single RJ-11 jack for interfacing either to a landline jack or to a signal processing cable connected to a cellular transceiver. The signal processing cable then transmits control signals to the transceiver, with the signals being appropriate to the type of cellular transceiver used, to produce the function requested by the modem's universal command (col. 3, line 46- col. 4, line 31). Furthermore, the input signal could be one or more DIPswitches, jumper lines, or switches mounted on the exterior of the circuit casing of signal processing cable and connected to an input of microcontroller. These switches or jumpers would be adjusted by the end user to define the type of cellular bus connected to signal processing cable, and the program of microcontroller would respond to these switch or jumper signals to select appropriate protocols or appropriate transmission lines of the cellular bus to be used. Input ports of the microcontroller may be connected to lines of the cellular bus and the microcontroller is programmed to sense signals on the lines of the cellular bus to identify the configuration of the cellular bus. The program of microcontroller would then select appropriate protocols and lines for transmission of signals to and reception of signals from the particular type of cellular bus (col. 18, line 17-col. 19, line 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of O'Sullivan to the communication system of Chen in order to provide a novel interface cable device to connect a cellular-capable modem to a plurality of cellular transceivers.

Regarding claims 5-7, Chen et al discloses a cellular terminal (figs. 1-2) comprising control means for the terminal, an antenna, a RF unit, and a means for testing the RF unit prior to the final assembly of the terminal, where the means for testing the RF unit comprises a signal line from the RF unit to the antenna (col. 1, lines 46-60; col. 5, lines 13-49).

However, Chen et al does not specifically disclose the features of a signal line that is arranged to be connected across the break by means of a jumper during the assembly of the terminal, wherein the break in the signal line is located between a measuring pad and contact pad, wherein said jumper is part of a mechanical component to be installed in the cellular terminal during assembly.

On the other hand, O'Sullivan, from the same field of endeavor, discloses a system for connecting a computer to both cellular and landline telephone systems. A cellular modem has a single RJ-11 jack for interfacing either to a landline jack or to a signal processing cable connected to a cellular transceiver. The signal processing cable then transmits control signals to the transceiver, with the signals being appropriate to the type of cellular transceiver used, to produce the function requested by the modem's universal command (col. 3, line 46- col. 4, line 31). Furthermore, the input signal could be one or more DIPswitches, jumper lines, or switches mounted on the exterior of the circuit casing of signal processing cable and connected to an input of microcontroller. These switches or jumpers would be adjusted by the end user to define the type of cellular bus connected to signal processing cable, and the program of microcontroller would respond to these switch or jumper signals to select appropriate protocols or appropriate transmission lines of the cellular bus to be used. Input ports of the microcontroller may be connected to lines of the cellular bus and the microcontroller is programmed to sense signals on the lines of the cellular bus to identify the configuration of the cellular bus. The program of microcontroller would then select appropriate protocols and lines for transmission of signals to and reception of signals from the particular type of cellular bus (col. 18, line 17-col. 19, line 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of O'Sullivan to the communication system of Chen in order to provide a novel interface cable device to connect a cellular-capable modem to a plurality of cellular transceivers.

Regarding claims 8-11, Chen et al discloses a manufacturing method for a cellular terminal (figs. 1-2), where a RF unit of a cellular terminal and an antenna of the cellular terminal are fabricated/mounted on a same printed circuit board and in which manufacturing method the RF unit is tested prior to a final assembly (col. 1, lines 46-60; col. 5, lines 13-49).

However, Chen et al does not specifically disclose the features of a signal line that is traveling from the RF unit to the antenna, between a measuring pad and contact pad, for measurements on the RF unit, wherein the break between the measuring pad and contact pad is electrically connected by means of a jumper, wherein the jumper is attached to a mechanical part in the terminal which, when installed in the final assembly, causes the jumper to electrically connect the measuring pad and contact pad, wherein the jumper is mounted as a discrete component on the printed circuit board by means of an attachment mechanism in the jumper

On the other hand, O'Sullivan, from the same field of endeavor, discloses a system for connecting a computer to both cellular and landline telephone systems. A cellular modem has a single RJ-11 jack for interfacing either to a landline jack or to a signal processing cable connected to a cellular transceiver. The signal processing cable then transmits control signals to the transceiver, with the signals being appropriate to the type of cellular transceiver used, to produce the function requested by the modem's universal command (col. 3, line 46- col. 4, line 31). Furthermore, the input signal could be one or more DIPswitches, jumper lines, or switches mounted on the exterior of the circuit casing of signal processing cable and connected to an input of microcontroller. These switches or jumpers would be adjusted by the end user to define the type of cellular bus connected to signal processing cable, and the program of microcontroller would respond to these switch or jumper signals to select appropriate protocols or appropriate transmission lines of the cellular bus to be used. Input ports of the microcontroller may be connected to lines of the cellular bus and the microcontroller is programmed to sense signals on the lines of the cellular bus to identify the configuration of the cellular bus. The program of microcontroller would then select appropriate protocols and lines for transmission of signals to and reception of signals from the particular type of cellular bus (col. 18, line 17-col. 19, line 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of O'Sullivan to the communication system of Chen in order to provide a novel interface cable device to connect a cellular-capable modem to a plurality of cellular transceivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MARCEAU MILORD

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Primary Examiner
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6-20-06